

## Environmental Protection Agency

## Pt. 1054, App. II

(5) In 40 CFR 1068.120 we specify recordkeeping related to rebuilding engines.

(6) In 40 CFR part 1068, subpart C, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to various exemptions.

(7) In 40 CFR part 1068, subpart D, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to importing engines.

(8) In 40 CFR 1068.450 and 1068.455 we specify certain records related to testing production-line engines in a selective enforcement audit.

(9) In 40 CFR 1068.501 we specify certain records related to investigating and reporting emission-related defects.

(10) In 40 CFR 1068.525 and 1068.530 we specify certain records related to recalling nonconforming engines.

### APPENDIX I TO PART 1054—SUMMARY OF PREVIOUS EMISSION STANDARDS

The following standards apply to nonroad spark-ignition engines produced before the model years specified in § 1054.1:

(a) *Handheld engines.* Phase 1 and Phase 2 standards apply for handheld engines as specified in 40 CFR 90.103 and summarized in the following tables:

TABLE 1 TO APPENDIX I—PHASE 1 EMISSION STANDARDS FOR HANDHELD ENGINES (g/kW-hr)<sup>a</sup>

Engine displacement class	HC	NO <sub>x</sub>	CO
Class III .....	295	5.36	805
Class IV .....	241	5.36	805
Class V .....	161	5.36	603

<sup>a</sup>Phase 1 standards are based on testing with new engines only.

TABLE 2 TO APPENDIX I—PHASE 2 EMISSION STANDARDS FOR HANDHELD ENGINES (g/kW-hr)<sup>a</sup>

Engine displacement class	HC+NO <sub>x</sub>	CO
Class III .....	50	805
Class IV .....	50	805
Class V .....	72	603

<sup>a</sup>The standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.

(b) *Nonhandheld engines.* Phase 1 and Phase 2 standards apply for nonhandheld engines as specified in 40 CFR 90.103 and summarized in the following tables:

TABLE 3 TO APPENDIX I—PHASE 1 EMISSION STANDARDS FOR NONHANDHELD ENGINES (g/kW-hr)<sup>a</sup>

Engine displacement class	HC+NO <sub>x</sub>	CO
Class I .....	16.1	519
Class II .....	13.4	519

<sup>a</sup>Phase 1 standards are based on testing with new engines only.

TABLE 4 TO APPENDIX I—PHASE 2 EMISSION STANDARDS FOR NONHANDHELD ENGINES (g/kW-hr)

Engine displacement class	HC+NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO
Class I-A .....	50		610
Class I-B .....	40	37	610
Class I .....	16.1	14.8	610
Class II <sup>a</sup> .....	12.1	11.3	610

<sup>a</sup>The Class II standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.

### APPENDIX II TO PART 1054—DUTY CYCLES FOR LABORATORY TESTING

(a) Test handheld engines with the following steady-state duty cycle:

G3 mode No.	Engine speed <sup>a</sup>	Torque (per-cent) <sup>b</sup>	Weighting factors
1 .....	Rated speed .....	100	0.85
2 .....	Warm idle .....	0	0.15

<sup>a</sup>Test engines at the specified speeds as described in § 1054.505.

<sup>b</sup>Test engines at 100 percent torque by setting operator demand to maximum. Control torque during idle at its warm idle speed as described in 40 CFR 1065.510.

(b) Test nonhandheld engines with one of the following steady-state duty cycles:

(1) The following duty cycle applies for discrete-mode testing:

G2 mode No. <sup>a</sup>	Torque (per-cent) <sup>b</sup>	Weighting factors
1 .....	100	0.09
2 .....	75	0.2
3 .....	50	0.29
4 .....	25	0.3
5 .....	10	0.07
6 .....	0	0.05

<sup>a</sup>Control engine speed as described in § 1054.505. Control engine speed for Mode 6 as described in § 1054.505(c) for idle operation.

<sup>b</sup>The percent torque is relative to the value established for full-load torque, as described in § 1054.505.

(2) The following duty cycle applies for ramped-modal testing:

RMC mode <sup>a</sup>	Time in mode (sec-onds)	Torque (per-cent) <sup>b,c</sup>
1a Steady-state .....	41	0
1b Transition .....	20	*

RMC mode <sup>a</sup>	Time in mode (sec-onds)	Torque (per-cent) <sup>b c</sup>
2a Steady-state .....	135	100
2b Transition .....	20	*
3a Steady-state .....	112	10
3b Transition .....	20	*
4a Steady-state .....	337	75
4b Transition .....	20	*
5a Steady-state .....	518	25
5b Transition .....	20	*
6a Steady-state .....	494	50
6b Transition .....	20	*
7 Steady-state .....	43	0

\* Linear transition.

<sup>a</sup>Control engine speed as described in § 1054.505. Control engine speed for Mode 6 as described in § 1054.505(c) for idle operation.

<sup>b</sup>Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

<sup>c</sup>The percent torque is relative to the value established for full-load torque, as described in § 1054.505.

## PART 1060—CONTROL OF EVAPORATIVE EMISSIONS FROM NEW AND IN-USE NONROAD AND STATIONARY EQUIPMENT

### Subpart A—Overview and Applicability

Sec.

1060.1 Which products are subject to this part's requirements?

1060.5 Do the requirements of this part apply to me?

1060.10 How is this part organized?

1060.15 Do any other CFR parts apply to me?

1060.30 Submission of information.

### Subpart B—Emission Standards and Related Requirements

1060.101 What evaporative emission requirements apply under this part?

1060.102 What permeation emission control requirements apply for fuel lines?

1060.103 What permeation emission control requirements apply for fuel tanks?

1060.104 What running loss emission control requirements apply?

1060.105 What diurnal requirements apply for equipment?

1060.120 What emission-related warranty requirements apply?

1060.125 What maintenance instructions must I give to buyers?

1060.130 What installation instructions must I give to equipment manufacturers?

1060.135 How must I label and identify the engines and equipment I produce?

1060.137 How must I label and identify the fuel-system components I produce?

### Subpart C—Certifying Emission Families

1060.201 What are the general requirements for obtaining a certificate of conformity?

1060.202 What are the certification requirements related to the general standards in § 1060.101?

1060.205 What must I include in my application?

1060.210 What records should equipment manufacturers keep if they do not apply for certification?

1060.225 How do I amend my application for certification?

1060.230 How do I select emission families?

1060.235 What emission testing must I perform for my application for a certificate of conformity?

1060.240 How do I demonstrate that my emission family complies with evaporative emission standards?

1060.250 What records must I keep?

1060.255 What decisions may EPA make regarding my certificate of conformity?

### Subpart D—Production Verification Testing

1060.301 Manufacturer testing.

1060.310 Supplying products to EPA for testing.

### Subpart E—In-Use Testing

1060.401 General Provisions.

### Subpart F—Test Procedures

1060.501 General testing provisions.

1060.505 Other procedures.

1060.510 How do I test EPA Low-Emission Fuel Lines for permeation emissions?

1060.515 How do I test EPA Nonroad Fuel Lines and EPA Cold-Weather Fuel Lines for permeation emissions?

1060.520 How do I test fuel tanks for permeation emissions?

1060.521 How do I test fuel caps for permeation emissions?

1060.525 How do I test fuel systems for diurnal emissions?

### Subpart G—Special Compliance Provisions

1060.601 How do the prohibitions of 40 CFR 1068.101 apply with respect to the requirements of this part?

1060.605 Exemptions from evaporative emission standards.

1060.640 What special provisions apply to branded equipment?

### Subpart H—Averaging, Banking, and Trading Provisions

1060.701 Applicability.

1060.705 How do I certify components to an emission level other than the standard